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TI Production of alkylene oxides and catalysts therefor

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AB Catalysts for the oxidn. of olefins to alkylene oxides comprise >15% Ag supported on a porous heat-resisting support (sp. surface area 0.05-10 m²/g), the catalyst contg. >16 .mu.g equiv K/m² of the surface area of the support. Thus, 8.9 g Ag oxalate were dissolved in 7 mL 50% aq. (CH₂NH₂)₂, the soln. was adjusted to 8 mL with H₂N(CH₂)₂OH, and KOAc was added to the soln. Twenty g of porous .alpha.-alumina in the form of 3-mm-diam. and 3-mm-long pellets (surface area 2.2 m²/g, mean pore diam. 1 .mu., and pore vol. 0.5 mL/g) was impregnated with the catalyst soln. and heated 3 h at 290.degree. to give a catalyst contg. 24% Ag and 35 .mu.g equiv K/m². A stream contg. 30% ethylene [7440-22-4] was oxidized by 8% O in the presence of 10 g catalyst and 30 ppm CH₂:CHCl at 240.degree. and gas hourly space velocity 2000/h and 15,000/h at 15 and 240 psia, resp. The catalyst selectivity and O conversion were 94 and 7%, resp., at 15 psia and 90 and 3%, resp., at 240 psia.

IT 75-21-8P, preparation

(manuf. of, potassium and silver alumina-supported catalysts for)

IT 74-85-1, reactions

(oxidn. of, alumina-supported potassium and silver catalysts for)